

**Montana Board of Oil and Gas Conservation
Environmental Assessment**

Operator: Citation Oil and Gas Corporation
Well Name/Number: BSU A336H
Location: SW NW Section 3 6 T32N R19E
County: Blaine, **MT;** **Field (or Wildcat)** Bowes

Air Quality

(possible concerns)

Long drilling time: No, 12 to 20 days drilling time.

Unusually deep drilling (high horsepower rig): No, single derrick drilling rig to drill to vertical to kickoff point, set 7" intermediate casing through the curve and then drill a horizontal lateral 3310' TVD 6343'MD.

Possible H2S gas production: Slight H2S from the Sawtooth Formation.

In/near Class I air quality area: No Class I air quality area.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:

- ☒ Air quality permit (AQB review)
- ☐ Gas plants/pipelines available for sour gas
- ☐ Special equipment/procedures requirements
- ☐ Other: _____

Comments: No special concerns – using small rig drill to vertical to kickoff point, set 7" intermediate casing through the curve and then drill a horizontal lateral 3310' TVD 6343'MD.

Water Quality

(possible concerns)

Salt/oil based mud: No, only freshwater, freshwater mud system to be used.

High water table: No high water table anticipated.

Surface drainage leads to live water: Yes, closest drainages are an unnamed ephemeral tributary drainage of Sixmile Coulee, about 1/8 of a mile to the north and an ephemeral drainage, Sixmile Coulee, about 1/2 of a mile to the east from this location.

Water well contamination: No, closest water wells are about 5/8 of a mile to the southeast and all other wells are 1 mile and further in any direction from this location.

Surface casing will be drilled to 1000' with freshwater and steel surface casing set and cemented to surface to protect ground waters.

Porous/permeable soils: No, silty -sandy bentonitic soils

Class I stream drainage: No Class I stream drainages, in the area of review.

Mitigation:

- ☐ Lined reserve pit
- ☒ Adequate surface casing
- ☐ Berms/dykes, re-routed drainage
- ☐ Closed mud system
- ☐ Off-site disposal of solids/liquids (in approved facility)
- ☐ Other: _____

Comments: 1000' of surface casing cemented to surface adequate to protect freshwater zones. Also, fresh water mud systems to be used.